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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,966	10/02/2003	Chishio Koshimizu	7553.0019-01	6290

22852 7590 07/12/2006

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EXAMINER

KACKAR, RAM N

ART UNIT PAPER NUMBER

1763

DATE MAILED: 07/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,966

Applicant(s)

KOSHIMIZU ET AL.

Examiner

Ram N. Kackar

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-15, 17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 13, 15, 17 and 18 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yoneichi Ogahara (US 5958265).**

Yoneichi Ogahara discloses a plasma processing apparatus (Fig 1), an electrode to hold a workpiece (3), an electrically conductive ring body on the periphery of the workpiece and placed on the electrode (9 and Col 4 lines 40-49), an electrically insulating ring body at the periphery of the electrically conductive ring body (11 and Col 59-63), a thermal conductivity adjusting member between the electrode and the electrically conductive ring body attached to the conductive ring body (4 and Col 1 lines 52-59) and a means for pressure application to electrically conductive ring body towards the electrode (Electrostatic chucking conductor 91) while the pressure application means is not exposed to plasma (91 is not exposed to plasma). Ogahara further teaches good thermal contact between the correction ring (conductive ring body) and suggests electrostatic pressure or mechanical pressure as well as thermally conductive gas as an alternative or in addition (Col 6 lines 21-45) for contact improvement means.

Regarding claim 15: the thermal conductivity of the underneath ring would inherently follow the expression as recited in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoneichi Ogahara (US 5958265) in view of Koshiishi et al (US Patent No. 5,919,332).

Yoneichi Ogahara teaches all limitations of the claims as discussed above except for a device for heat application to the electrically insulating ring body.

Koshiishi et al teach a plasma processing apparatus including an inner focus ring 61 (Fig. 17) and an outer focus ring 62 wherein the outer ring 62 having a conductive member 97 disposed therein for absorbing heat and heating the insulating member thereby to prevent reaction products from sticking to the insulating outer ring (column 16, lines 4-34; column 21, line 45 through column 23, line 64).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to implement the mechanism for heating the insulating outer focus ring as taught by Koshiishi et al in the apparatus of Yoneichi Ogahara so that reaction products do not stick to the outer focus ring.

Response to Amendment

Applicant's arguments filed 5/1/2006 have been fully considered but they are not persuasive.

Applicant argues that there is a gap between contact sheet material 4 and characteristic correction ring.

This is not correct since Ogahara explains the placement of contact sheet material in the gap (Col 1 lines 52-63) so that after the placement there is no gap left.

Regarding applicant's argument that the electrostatic force by electrode 91 does not apply through the thermal conductive adjusting member.

Examiners position is as follows:

It is noted from the specification (Paragraph 77 of the Publication US 2005/0172904) that the adjusting member 408 is bonded to the conductive member 404 by adhesive so that the pressure exerted by fastener 406 serves to improve contact between the conductive ring and the supporting electrode. In the reference of Ogahara exactly the same thing is done. The electrostatic pressure improves the contact of the correction ring to the electrode not only through the electrostatic chuck part but also through direct contact to electrode through the feet of the ring. Further Ogahara teaches mechanical pressure device as an alternative, which would apply pressure directly through sheet 4. The description at (Col 6 lines 21-45) makes the objective of improving the contact of the correction ring to the main body, very clear. Therefore the disclosed structure would at least be an obvious variation.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

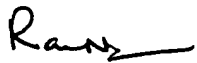
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ram N. Kackar whose telephone number is 571 272 1436. The examiner can normally be reached on M-F 8:00 A.M to 5:P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571 272 1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ram Kackar
Examiner AU 1763